

Technological Challenges for Creative Commons Digital Licenses

Dr Renato Iannella
Program Leader, NICTA
renato@nicta.com.au



Australian Government
Department of Communications,
Information Technology and the Arts
Australian Research Council

NICTA Members

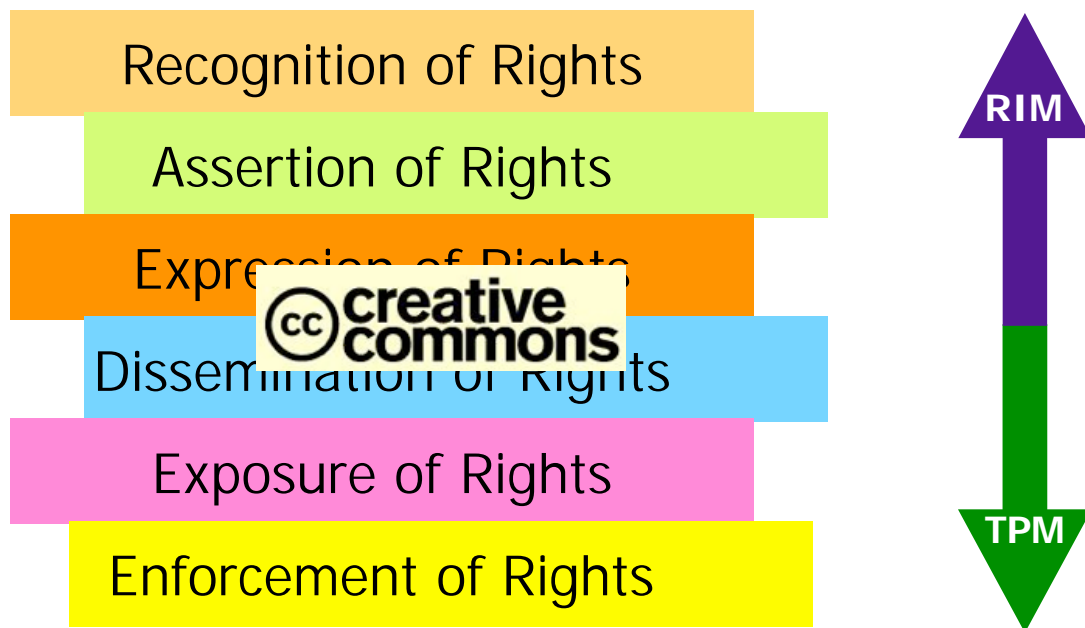


NICTA Partners

Overview

- Rights Expression Languages
- Creative Commons
- CC License Challenges...
- Open Digital Rights Language
- ODRL/CC Profile
- The Click Project
- "The DRM Saga"
- Summary

Scope of RELs




UK JISC DRM Study 2004 <<http://www.intrallect.com/drm-study/>>

Creative Commons

- Pre-defined Licenses aimed at sharing open content
 - Attribution, Attribution-NonCommercial...
 - Developing Nations, Sampling...
- Mix and match from the following
 - Permissions
 - rights granted by the license (reproduce)
 - Prohibitions
 - things prohibited by the license (commercial)
 - Requirements
 - restrictions imposed by the license (attribution)


License Stream



COMMONS DEED

Attribution-ShareAlike 2.0

You are free:




LEGAL CODE

```
<License rdf:about="http://creativecommons.org/licenses/by-nc-nd/2.5/">
  <permits rdf:resource="http://web.resource.org/cc/Reproduction"/>
  <permits rdf:resource="http://web.resource.org/cc/Distribution"/>
  <requires rdf:resource="http://web.resource.org/cc/Notice"/>
  <requires rdf:resource="http://web.resource.org/cc/Attribution"/>
  <prohibits rdf:resource="http://web.resource.org/cc/CommercialUse"/>
</License>
```

- For any reuse or distribution, you must make clear to others the license terms of this work.
- Any of these conditions can be waived if you get permission from the copyright holder.

Your fair use and other rights are in no way affected by the above.

This is a human-readable summary of the [Legal Code \(the full license\)](#).

[Disclaimer](#) 

BOUND BY THE TERMS OF THIS LICENSE: THE LICENSOR GRANTS YOU THE RIGHTS CONTAINED HERE IN CONSIDERATION OF YOUR ACCEPTANCE OF SUCH TERMS AND CONDITIONS.

1. Definitions

a. "Collective Work" means a work, such as a periodical issue, anthology or encyclopedia, in which the Work in its entirety in unmodified form, along with a number of other contributions, constituting separate and independent works in themselves, are assembled into a collective whole. A work that constitutes a Collective Work will not be considered a Derivative Work (as defined below) for the purposes of this License.

b. "Derivative Work" means a work based upon the Work or upon the Work and other pre-existing works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which the Work may be recast, transformed, or adapted, except that a work that constitutes a Collective Work will not be considered a Derivative Work for the purpose of this License. For the avoidance of doubt, where the Work is a musical composition or sound recording, the synchronization of the Work in timed-relation with a moving image ("synching") will be considered a Derivative Work for the purpose of this License.

Where is the License?

- License is a URL and a logo attached
 - Usually link to content and license from web page
- Very easy to detach the two
 - And will breach the license conditions
- No generic "packaging" format for both exists or deployable today
 - ad-hoc support for some formats
 - mp3, pdf



This MP3 file is licensed under a  **Creative Commons License** and is copyrighted © 2001-2003 by me, Scott Andrew LePera.

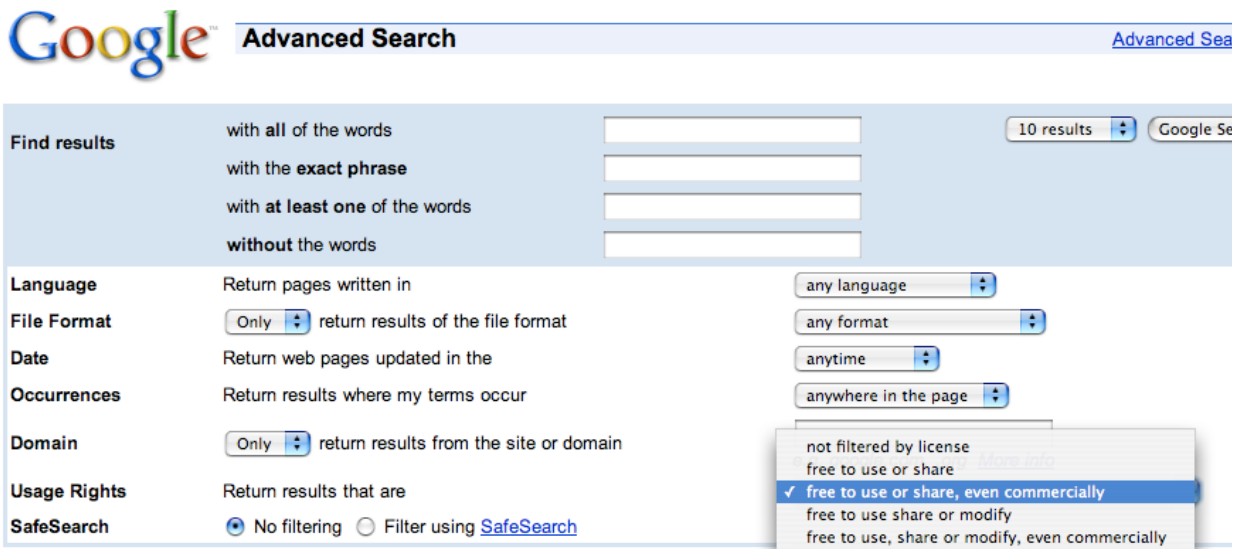
Implicit License?

Only this time, the movie would not copy. Confused, he checked the packaging and discovered a small "CP" printed in on the back. His disc could not be copied under any circumstances because Universal Pictures had equipped it with copy-protection technology.

In the Universal case, the Paris appeals court said that if a DVD was not copyable, there must be a clear and visible warning. The small "CP" symbol does not meet that description, the court said in reversing the lower court.

"Consumers Fight Copy Protection" International Herald Tribune 12-13 Nov 2005

Discovery

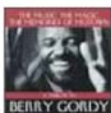


The screenshot shows the Google Advanced Search page. The search bar is empty. The results section shows 10 results. The filters section includes:



















- Find results**: with all of the words, with the exact phrase, with at least one of the words, without the words
- Language**: Return pages written in any language
- File Format**: Only return results of the file format any format
- Date**: Return web pages updated in the anytime
- Occurrences**: Return results where my terms occur anywhere in the page
- Domain**: Only return results from the site or domain
- Usage Rights**: Return results that are
 - ☒ free to use or share, even commercially
 - ☐ free to use share or modify
 - ☐ free to use, share or modify, even commercially
- SafeSearch**: ☒ No filtering ☐ Filter using SafeSearch

Discovery

JAZZ SPAGHETTINI, zigzag



MUSIC
Title: JAZZ
File size:
Length: 3
Format: m
DESCRIP
Love to co
questions,
Date crea
First appe
Sampling
Recording
Additional
First appe
My other
PING-pOn

	artist: Solid E title: I Left 'Cause You Ain't Right This song is a ballad.	   Jazz Jazz Vocals	License Lyrics add to my.SoundClick Your vote: <u>hot flop</u>
	artist: ReniKay title: Walkin' With The Blues (Jazz) ... walkin' along the beach with breaking waves and breaking heart ...	   Jazz Smooth Jazz	wonderful song GREAT Artist! License Lyrics add to my.SoundClick Your vote: <u>hot flop</u>
	artist: maria johnston title: Within My Heart I'll Always Have Room Love remains in the heart forever. This song hit the #1 spot on Soundclick.	  Jazz Acid Jazz	great song and artist! Lyrics add to my.SoundClick Your vote: <u>hot flop</u>
	artist: W Terence Jackson title: I've Been Wanting You For So Long Maria Johnston, what can I say, you wore out this arrangement. You're my #1 SANGA.	   Jazz Smooth Jazz	good song and Great vocal License Lyrics add to my.SoundClick Your vote: <u>hot flop</u>
	artist: W Terence Jackson title: What A Woman Wants A description of what a woman wants, Specifically, from a man. Maria Johnston, you know this is one of my favorites.	  Jazz Free Jazz	Wonderful song and Great Vocal! Lyrics add to my.SoundClick Your vote: <u>hot flop</u>

Matching Semantics

- The CC REL is a compact rendering of the semantics of the legal licenses
- In most cases the REL captures the broad license conditions, such as the right to produce derivatives, or prohibits commercial usage
- However, in some cases, the REL does not capture these semantics
- Example: CC Sampling licenses

Sampling Licenses



- 3 licenses: Sampling, Sampling Plus, Noncommercial Sampling Plus
- **“People can take and transform pieces of your work for any purpose other than advertising, which is prohibited. Copying and distribution of the entire work is also prohibited.”**
- No new machine semantics defined
 - only 3 new license identifiers (URLs)
- Hence, no “prohibition” for “advertising”
- “copying” not allowed but “Reproduction” is in machine code?

Music Share



- Music Sharing License
 - Noncommercial
- “The owner of this music retains his or her copyright but allows you to download, copy, file-share, **trade**, distribute, and publicly perform (e.g. webcast) it”
- “trade” semantics in conflict with non-commercial use?

Who? How?



Attribution - credit must be given to
copyright holder and/or author

Extensibility



- CC licenses lack extensibility of its machine-readable REL
- UK Common Information Environment (CIE) report on the use of Creative Commons in the public and education sectors raised a number of areas where the CC licenses lacked support, including:
 - Geographic restrictions
 - Sector restrictions
 - Third party material (including limited duration)
 - No endorsement clause
- BBC Archive - UK only constraint

ODRL Initiative



- Originally developed by IPR Systems
- Need for unencumbered REL
- Incorporated REL's from Nokia & Real Networks
- Created an open and free Initiative
 - Independent Governance Board
 - Working Groups (V2.0, Profiles...)
- Standards adoption
 - Open Mobile Alliance (OMA) DRM spec
 - largest commercial deployment
 - Published as W3C Note



The ODRL REL



- ODRL/CC joint Working Group
 - Express CC semantics in richer ODRL language
 - <http://odrl.net/Profiles/CC/>
- Specify
 - Rights Holders (and all parties)
 - Details for Attribution
 - Country locations constraint
 - Identify the asset
- Richer set of Terms (Profiles)
- Explicit Agreement now possible

More...



- [David Value]
 - AEShareNet interoperability
- [Simon Whipp]
 - residuals
 - credit to performers
- [Michael Fraser]
 - reward creators (payments)
 - “interoperable metadata”



CLiCK Project



- Common Licenses for Collaborative Knowledge
 - DEST Funded project with QUT & NICTA
- Investigate the Legal aspects of CC Licenses used for open access repositories
 - Community Profiles
- Investigate the REL models and technical protocols for systems that manage open access repositories
 - Propose a new framework for CC licenses based on existing ODRL REL
- Greater use and trust of CC license model

The DRM Saga



- DRM sector infested with Patent Claims
- Many cover enforcement (InterTrust=Sony+Philips)
- One covers RELs (ContentGuard=MS+TW+Thomp)
- Current royalty claim focussed on the Mobile sector
 - huge content predictions (=\$\$)
- Lots of uncertainty in the industry
 - impact in standards and research
- CC REL not immune...
- Open Access community threat...

Summary



- CC Initiative is right direction...
 - Needs transparent governance
- But needs more technical clarity and extensibility for community-specific requirements
- Needs to adopt more robust ODRL REL
 - based on formal IPR model
 - tested and works in the wider community
- CLiCK Project will develop these legal and technical solutions...

For you...And your Machine



```
<odrl>
  <agreement>
    <asset>
      <context><uid>THESE SLIDES</uid></context>
    </asset>
    <permission>
      <display/>
      <print/>
    </permission>
    <party>
      <context><uid>RENATO IANNELLA</uid></context>
      <context><uid>NICTA</uid></context>
      <rightsholder/>
    </party>
    <party>
      <context><uid>YOUR NAME</uid></context>
    </party>
  </agreement>
</odrl>
```

